

REMARKS

Claims 1-20 are pending in the application.

Claims 1-20 have been rejected.

Claims 8, 9, 14, and 18 have been amended to correct minor informalities.

No new matter has been added.

Reconsideration of the Claims is respectfully requested.

1. Rejection under 35 U.S.C. § 112, ¶ 2

Claims 8 and 14 were rejected as being indefinite. Appropriate correction has been made.

2. Objection to the Claims

Claims 9 and 18 were objected to due to informalities. Appropriate correction has been made.

3. Rejection under 35 U.S.C. § 103(a)

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). MPEP § 2142, p. 2100-134 (Rev. 3, May 2005).

(a) Claims 1 through 13 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,160,798 to Reed et al. ("Reed").

Reed describes resource management in a radiotelephone network that is accomplished by load balancing. When it is determined that the network has become out of balance and that too many resources are being used at a particular cell site, the network causes handoff threshold parameters to be changed thereby causing mobile units to change the cell sites with which they are in soft handoff. This reduces the number of mobiles being supported by the overloaded cell

site but does not affect the maximum number of cell sites to which each mobile can be in soft handoff.

While the present invention is also directed to resource management in a radiotelephone network, it achieves resource management by a very different mechanism. Once a particular cell site has been discovered to have too many resources being used (that is, there are fewer than desirable Walsh Codes available for new calls, either originated new calls or handoff calls), the mobiles are directed to reduce the maximum number of cell sites that they can be in soft handoff with. This directly reduces the number of Walsh Codes being used in support of each of the mobiles thereby making more available for new call support by the cell site.

In contrast, Reed finds application in environments for “power limited [base stations], in that the resource of transmit power is nearly exhausted. As a consequence of being power limited, the base station may enter a blocking situation where users desiring service through a traffic channel are denied access” (Reed Col. 2:1-5). In Reed, the subscriber unit has two types of soft handoff links, one from a resource limited base station, and another from a non-resource-limited base station. (*See, e.g.*, Reed, Figure 1; Col. 9:9-16) (“[L]imited base station 22 may encourage subscribers such as subscriber unit 34, to drop a soft handoff communication link 38 [while keeping communication link 39 with non-limited base station 26].”).

With respect to user spreading codes under Reed, when the transmit power does not exceed a threshold, “the process determines whether or not the number of available user spreading codes falls below a threshold in order to detect a resource shortage of available user spreading codes in a resources limited base station.” (Reed Col. 6:65-66; Col. 7:1-3). When the number of available user spreading codes fall below the threshold, “the process selects a subscriber unit having an established soft handoff link with a second base station” (Reed Col. 7:10-15). “Once the subscriber unit has been selected, the process then increases reporting thresholds, such as T_{drop}, in the selected subscriber unit to increase the likelihood that . . . the soft handoff linked with the resource limited base station will be eliminated.” (Reed Col. 7:29-36). That is, Reed encourages the mobile to drop its soft handoff connection with a resource limited base station by changing its handoff parameters and *hopefully* transferring soft handoff to other soft handoff links, preferably those that are not with a resource limited base station.

In contrast, Applicants Claim 1 recites a “method for managing Walsh Codes in a Code Division Multiple Access (CDMA) cellular wireless communication system, the method

comprises: assigning a plurality of Walsh Codes to a mobile terminal, wherein each of the plurality of assigned Walsh Codes corresponds to a cell or sector providing forward link transmissions to the mobile terminal; determining that an insufficient number of unused Walsh Codes are available; and limiting the number of cells or sectors providing forward link transmissions to the mobile terminal to thereby limit the number of Walsh Codes being employed in servicing the mobile terminal to a second plurality of Walsh Codes, wherein the second plurality of Walsh Codes is less than the first plurality of Walsh Codes." (emphasis added).

In this manner, as set out in Applicant's Specification at page 4, "Walsh codes [are managed] in order to ensure that sufficient Walsh codes are available to prevent call blocking and to support additional critical hand-off operations." (Specification, p. 4, *ll.* 9-11).

Also, Applicant's Claim 8 recites a "method for managing Walsh Codes in a Code Division Multiple Access (CDMA) cellular wireless communication system, the method comprises: assigning a plurality of Walsh Codes to each of a plurality of serviced mobile terminals, wherein each of a plurality of Walsh Codes servicing a mobile terminal corresponds to respective forward link transmissions; determining that an insufficient number of unused Walsh Codes are available; and limiting the number of forward links that can be employed for each of the plurality of mobile terminals to thereby limit the number of Walsh Codes being employed by: terminating at least one forward link for at least some of the plurality of mobile terminals; and limiting the number of forward links that can be employed for hand-off." (emphasis added). It is these above noted features of Claim 8 that are not found in the Reed reference.

Accordingly, Applicant respectfully submits that a *prima facie* case has not been established in that Reed does not teach or suggest all the claim limitations as set out in the method of Applicant's Independent Claim 1 and Independent Claim 8. Also, Applicant respectfully submits that there is no suggestion or motivation, either in Reed or in the knowledge generally available to one of ordinary skill in the art, to modify the hand-off accelerant of Reed to achieve Applicant's claimed invention as set out in Claims 1 through 7 and Claims 8 through 13. Applicant respectfully requests that the rejection to Independent Claim 1 and Claims 2-7 that depend directly or indirectly therefrom, and Independent Claim 8 and claims 9-13 that depend directly or indirectly therefrom be withdrawn.

(b) Claims 14 through 20 were rejected under 35 U.S.C. 103(a) as being unpatentable over Reed in view of U.S. Publication No. 2005/0221828 to Wakuta et al. (“Wakuta”).

Wakuta relates to a “method of handing off a mobile station in a mobile communication system including first and second wireless base stations, comprising the steps of: (a) varying a handoff threshold which is set in the mobile station, according to quality of a wireless link between the mobile station and the first wireless base station which currently controls the mobile station; and (b) handing off the mobile station from the first wireless base station to the second wireless base station, based on the handoff threshold.” (Wakuta, ¶ 0022) (emphasis added). That is, Wakuta varies the handoff threshold in each of the mobile stations. (Wakuta, ¶ 0057).

In contrast, Applicant’s Claim 14 recites, *inter alia*, a “base station controller that supports Code Division Multiple Access (CDMA) operations, the base station controller comprises: a Mobile Switching Center (MSC) interface that interfaces the base station controller to a MSC; at least one base station interface that interfaces the base station controller to a plurality of base stations; and at least one digital processor coupled to the base station interface and to the MSC interface; and a plurality of software instructions that are executed by the processor, the plurality of software instructions comprising: software instructions that, upon execution by the processor, cause the base station controller to, assign a plurality of Walsh Codes to each of a plurality of serviced mobile terminals, wherein each of a plurality of Walsh Codes servicing a mobile terminal corresponds to respective forward link transmissions; software instructions that, upon execution by the processor, cause the base station controller to determine that an insufficient number of unused Walsh Codes are available; and software instructions that, upon execution by the processor, cause the base station controller to limit the number of forward links that can be employed each of the plurality of mobile terminals to thereby limit the number of Walsh Codes being employed by terminating at least one forward link for at least some of the plurality of mobile terminals and limiting the number of forward links that can be employed for subsequent hand-offs.” (emphasis added).

Accordingly, Applicant respectfully submits that there has not been a *prima facie* showing that substantiates the rejection of Applicant’s claimed invention. There is no suggestion or motivation, either in the handoff accelerant of Reed or the mobile station threshold device of Wakuta to achieve Applicant’s claimed invention as set out in its Independent Claim 14, or in Claims 15-20 that depend directly or indirectly therefrom. Applicant respectfully requests that the rejection to these claims be withdrawn.

4. Conclusion

As a result of the foregoing, the Applicant respectfully submits that Claims 1-20 are in condition for allowance, and respectfully requests an early allowance of such Claims.

If any issues arise, or if the Examiner has any suggestions for expediting allowance of this Application, the Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at *ksmith@texaspatents.com*.

The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Garlick Harrison & Markison Deposit Account No. 50-2126 (ref 13166RRUS01U). 37 CFR 1.136.

Respectfully submitted,

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